DEPARTMENT OF PLANNING & NATURAL RESOURCES
DIVISION OF PERMITS

FLOOD HAZARD PERMIT

FZP NO. _____ RECEIPT NO. _____

QUARTER _____ DATE _____

Property Owner/Applicant Government of the US Virgin Islands, DPW

Address 6002 Anna's Hope, Christiansted, VI 00820, Attn:John Paul David

City Christiansted Island St. Croix, USVI Zip Code 00824

Telephone (Home) _____ (Work) 340-626-7323

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Engineer, Architect, Land Surveyor (If Applicable)

Daniel _____ Schierloh

(First Name) (M.I) (Last Name)

Street Address: 13GA Estate Bethlehem, East Airport Road

Post Office Address: P.O. Box 4720 Kingshill, VI 00851

Telephone No.: 340-778-5220

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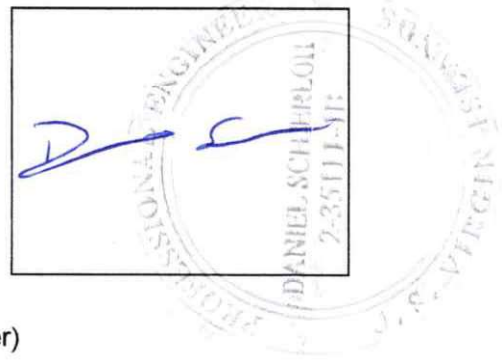

PROJECT INFORMATION

Site Location (Address, Property Description, or Lot Number)
**Attach Flood Map (FIRM) and show property location.

Rt. 63 – Concordia
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

PROPOSED DEVELOPMENT

( ) New Construction ( ) Residential (X)Non-Residential

(X) Improvement of Existing Structure

Value of Existing Structure _____

Value of Proposed Improvement _____

( ) Manufactured Home

Within existing manufactured home park or subdivision _____

Outside existing manufactured home park or subdivision _____

( ) Fill (amount and type) _____

( ) Alteration of Water Course (Describe and attach sheet)

FLOOD HAZARD ZONE

(Circle) A AO AH A1-30 (AE) V V1-30 VE

Flood Source (Name of Waterway, etc.)

Caribbean Sea

Floodway? (Check)

No X Yes ____ (If yes, Step-Backwater Analysis Required)

Base Flood Elevation 16-17 feet

FEMA Map Panel Number 0070G, Panel 77 of 94 Map Date 4/16/2007

( ) Certificate of Elevation file date _____

( ) Approved _____ Signature _____

( ) Disapproved _____ Date _____

( ) Comments: _____

CERTIFICATE OF COMPLIANCE

for

FLOODPLAIN DEVELOPMENT

(Applicant shall fill in all pertinent information in Section A including sections nos. 1 and/or 2.)

SECTION A

Primises location _____ Permit No. _____

_____ Variance No. _____

Project Type: _____ Date: _____

---

1. I certify that I have completed the above project in accordance with the Community's floodplain management regulations and have met all the requirements which were conditions of my permit. I now request completion of this Certificate of Compliance by the program administrator.

Date: _____ _____

Signature

2. I certify that I have completed the above project in accordance with conditions of variance number _____, dated _____, to the Community's floodplain management regulations and have met all requirements which were a condition of the variance. I now request completion of this Certificate of Compliance by the program administrator.

Date: _____ _____

Signature

SECTION B

(Local Administrator will complete, file, and return a copy to the applicant.)

Floor Slab Elevation Date: _____

Inspected by: _____

Inspector's Signature

This certifies that the above described floodplain development complies with requirements of Flood Damage Prevention Local Law No. _____, or has a duly granted variance.

Signed: _____

Local Administrator

Date: _____

Supporting Certifications: Floodproofing, elevation, hydraulic analysis, etc; (LIST)

FLOOD HAZARD PERMIT APPLICATION

Environmental Assessment Report

Applicant: Government of the US Virgin Islands – Dept. of Public Works
Project: VI ST ER STX(003): Storm Damage Repair to Roadways, Culverts, Embankments, Bridges, and Other Roadway Features on St. Croix, USVI

Site: Rt. 63 – MP 0.9 – Concordia Road

JANUARY 2022

Prepared by: Tysam Tech, LLC

Tysam Tech, LLC

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Table of Contents

Table of Figures

1.00 NAME AND ADDRESS OF APPLICANT

Government of the US Virgin Islands
Department of Public Works

Mailing Address:
6002 Annas Hope
Christiansted, VI 00820

Physical Address:
6002 Annas Hope
Christiansted, VI 00820

2.00 LOCATION OF PROJECT

The project is located at the following physical address:

Rt. 63 Concordia Road, MP 0.9
Frederiksted, VI 00840

The Rt. 63 – MP 0.9 project site is located in St. Croix, in Estate La Grange. The site is positioned at 17°42'45.9"N, 64°52'28.1"W, along Concordia Road. Figures 2.00.1 and 2.00.2 below are a Location and Agency Review Map and Vicinity Map, respectively.

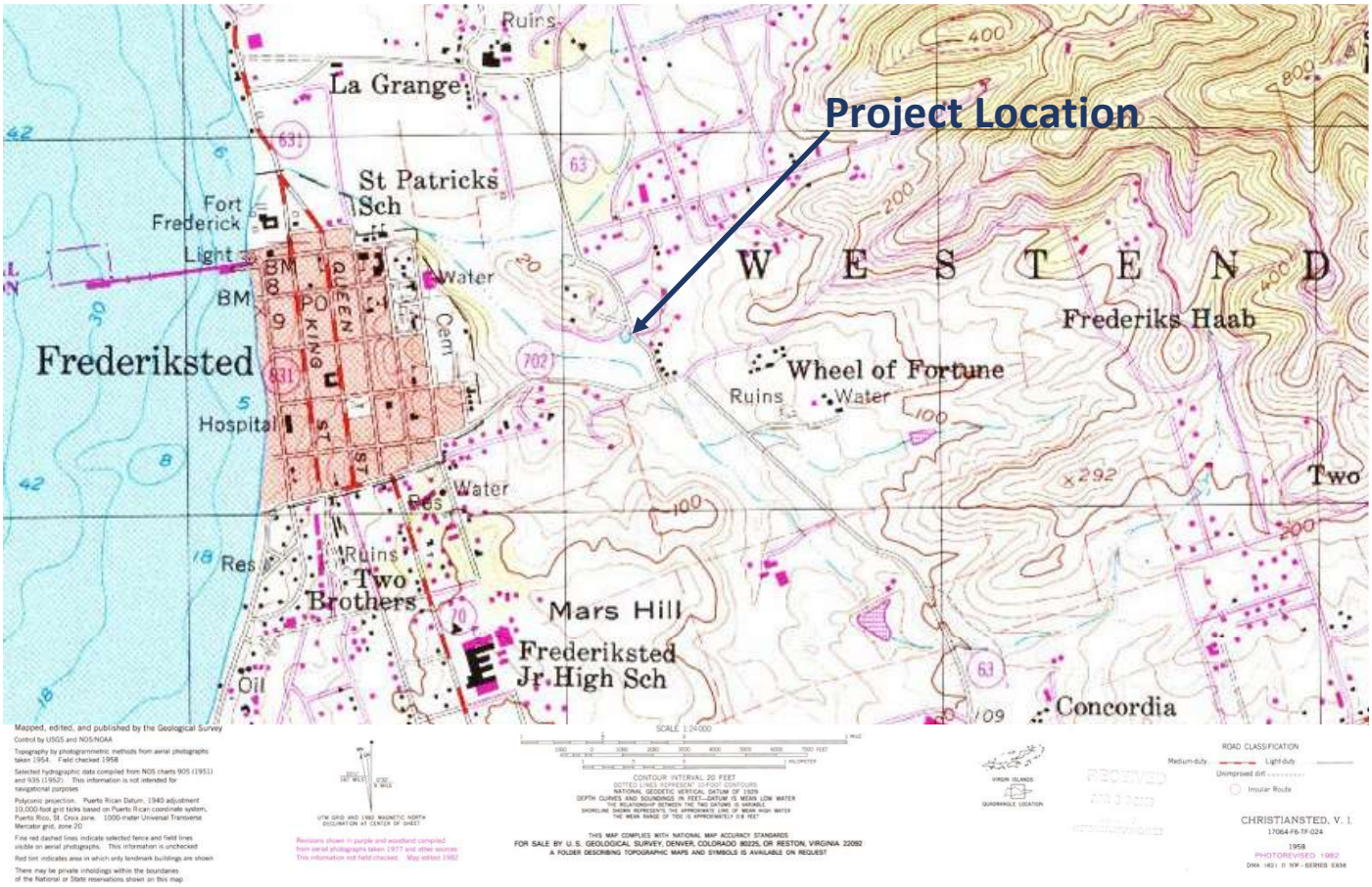

Figure 2.00.1 – Location and Agency Review Map (USGS Quadrangle Map, Frederiksted, VI,1958 (1983 ed.))

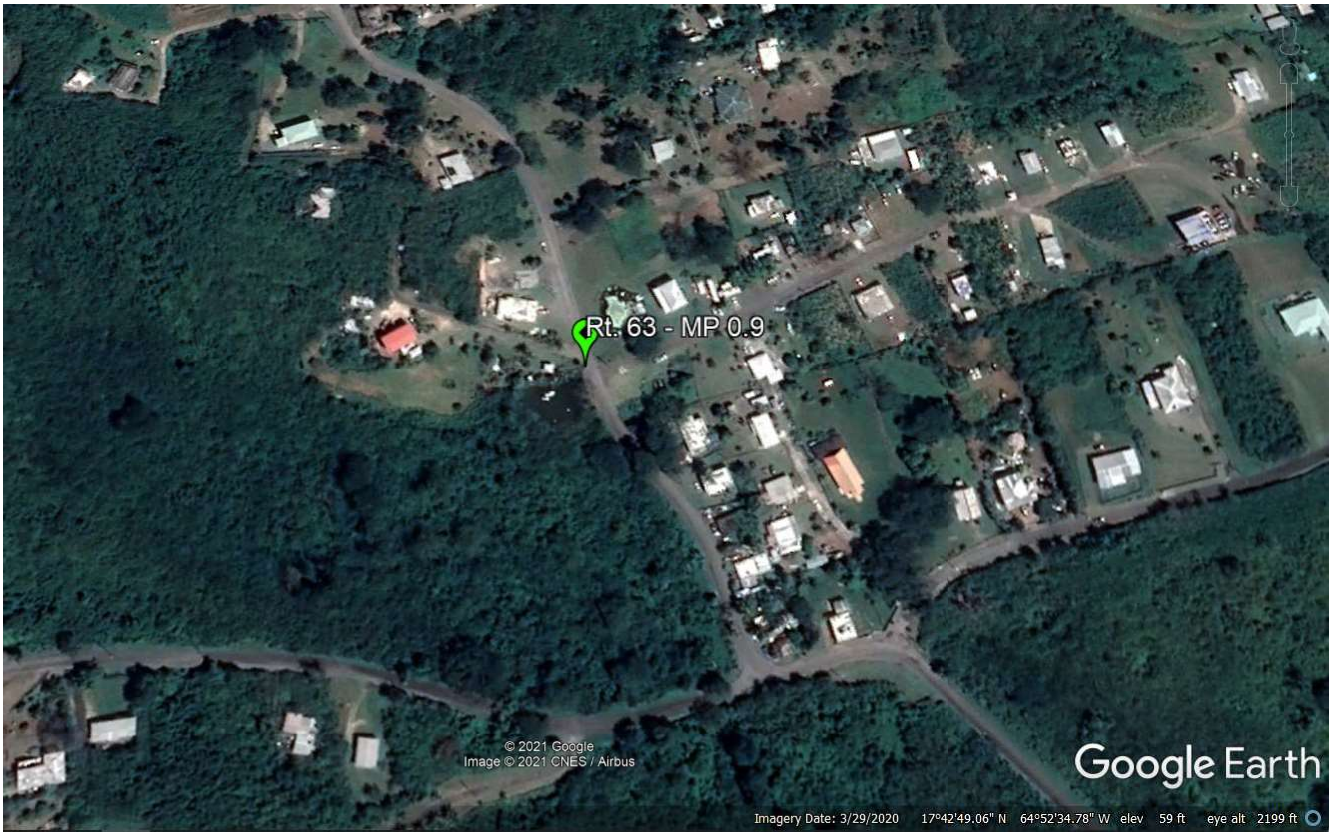

Figure 2.00.2 –Vicinity Map Showing Location of Facility (Google Earth).

3.00 ABSTRACT

SUMMARY OF WORK FOR ALL 15 SITES

Significant damage to roads, gut crossings and bridges occurred as a result of the landfall of Hurricane Maria in 2017 to the island of St. Croix, USVI. To provide the necessary repair to the damaged infrastructure, the USVI Department of Public Works (DPW) has contracted VI Paving, Inc. (VIP) to undertake the repairs at 15 different sites around St. Croix. These sites consist of different types of rehabilitation work and different project scale. Of the 15 sites, three are bridge rehabilitations, seven are culvert rehabilitations, and the remaining five are strictly roadway rehabilitations. This project is funded through the US Department of Transportation (USDOT), Federal Highway Administration, Eastern Federal Lands Highway Division and is in partnership with the USVI Department of Public Works (DPW).

The project involves the removal of damaged asphalt and concrete pavement, pipe culverts, bridges, guardrails, retaining walls, embankment material, utility lines and poles, and other debris. The damaged infrastructure will be replaced by new culverts, bridges, headwalls, guardrails, rip rap and gabion baskets, concrete retaining walls, embankment stabilization materials, drainage inlets, aggregate base, asphalt pavement, and concrete pavement. Also included in the scope of work is the clearing and cleaning of existing drainage structures and the reconditioning of shoulders and ditches. The aforementioned activities will restore the proposed project areas to full and improved function and prevent similar damage to occur during future storm events.

RT. 63 CONCORDIA ROAD, MP 0.9

For this particular site under project VI ST ER STX(003), 40 linear feet of roadway at MP 0.9 of Rt. 63 (Concordia Road) will be rehabilitated. This will include removal of the existing 24 inch CMP culvert and replacement with a triple 48” HDPE pipe culvert. Concrete headwalls will be added to both the inlet and outlet of the new culverts to complete the drainage structure. The roadway will receive six inches of asphalt (4 inches asphalt base and 2 inch surface layer) over an 8 inch minimum aggregate base to cover the new culvert trench to seal the roadway and provide a crown profile for adequate drainage.

The proposed construction will remain within the footprint of the existing roadway.

Project Assurances

- Employees’ and the public’s health and safety are protected with the best available systems and technologies.
- Environmental impact is considered at all times.
- No significant negative impact to environment.
- Air quality is protected.
- Stormwater quality is protected.
- Nearshore water quality is protected.

4.00 STATEMENT OF OBJECTIVES SOUGHT BY THE PROPOSED PROJECT

VIP seeks to repair and rehabilitate the referenced section of roadway by replacing the existing culvert with a triple culvert design structure, installing headwalls on either side, and resurfacing the above roadway with asphalt. The objective is to maintain a safe route of transportation in this area, allow stormwater runoff to flow freely through the drainage route, and to prevent further degradation of the roadway.

5.00 DESCRIPTION OF PROJECT

5.01 SUMMARY OF PROPOSED ACTIVITY

a) Purpose of Project

The purpose of the project is to rehabilitate a 40-foot section of roadway which was damaged from Hurricane Maria in 2017. The location is along Rt. 63, Concordia Road, at MP 0.9. The existing roadway will be removed in order to remove and replace the existing culvert with three 48" HDPE culverts. Once the new culvert structure is installed, the roadway will be rehabilitated, and surface asphalt will be applied to provide a crown profile to allow proper drainage off of the roadway. Headwalls will be installed on both sides of the roadway. This project will help to ensure another major storm event does not degrade the roadway to the point of inhibiting passage through the area.

b) Presence and Location of any Critical Areas and Possible Trouble Spots

The project area is in a fairly populated section of the West End in St. Croix. It is a small neighborhood with several single-family residential homes. There are two small ponds in the vicinity, one to the northeast, and the other to the southwest of the referenced section of roadway. Drainage ditches and the referenced existing culvert is what allows runoff to flow from one to the other during heavy rains. Most of the area adjacent to the project site is developed, however to the southwest of the project site is strictly undeveloped vegetation. As such, the clearing of debris and repair of the roadway must not cause any impact to the surrounding areas, existing habitats, or wildlife.

Site slope is 0-2%. Elevation is approximately 16 feet above sea level.

A review of the U.S. Fish & Wildlife Information for Planning and Consultation (IPaC) indicate that there are no endangered species, migratory birds, or sensitive facilities directly in or around the project area.

Due to the nature of the project scope of road rehabilitation, there exists potential for sedimentation and erosion during project activities. However, appropriate protective Best Management Practices (BMPs) will be employed through the entire project timeline in accordance with minimum requirements of the VI Environmental Protection Handbook (2002), and as the project footprint is essentially identical to the existing infrastructure, there are no anticipated impacts to stormwater and air quality.

These BMPs chosen will meet the minimum standards of the VI Environmental Protection Handbook (2002).

c) *Proposed Method of Land Clearing*

Any brush and debris requiring removal in order to access the existing road and related infrastructure will be cut and transported off-site as green waste for disposal at the Waste Management Authority Transfer Station. Earth work will be limited to scraping the road surface and excavating the culvert.

d) *Plans for Topsoil and Site Disturbance Provisions*

Topsoil and site disturbance will be minimized during the construction timeline. The project will focus within the existing footprint of the road along the 40-foot length as depicted in the site drawings.

The site will otherwise see no topsoil or site disturbance.

A Storm Water Pollution Prevention Plan (SWPPP) complying with the Department of Planning and Natural Resources' Construction General Permit requirements will be implemented during project activities.

e) *Erosion and Sediment Control Devices to be Implemented*

The following Best Management Practices (BMPs) will be implemented on the site to control runoff and protect natural resources:

Silt Fence – Due to working in a drainage route and close proximity to two water ponds, silt fencing shall be used to protect the downstream pond and vegetated areas and control runoff and sediment loss on both the east and west sides of the road. The proposed location for silt fencing placement is indicated in the attached Erosion Control Plan figure.

Containment Berms– A containment berm will be constructed, if needed, to support the silt fencing in containing stormwater and retaining sediment.

Design of these BMPs will follow the minimum standards of the VI Environmental Protection Handbook (2002).

f) *Schedule for Earth Changing Activities & Implementation of Erosion/Sediment Control Measures*

No earth change activities will take place until the BMPs are installed at the site. Erosion and Sediment control for the Site Project construction will be managed as follows:

1. Ensure silt fencing and any other BMPs are setup before work begins.

2. Minimize earth work in the vegetation removal at the road shoulder and removal of existing asphalt.

3. Excavate existing culverts.

4. Prepare and compact aggregate base for new culverts and asphalt layer.

5. Install new culverts, headwalls, and re-asphalt the road before removing silt fencing and contingent berms.

g) Maintenance of Erosion and Sediment Control

Sediment control devices, such as dikes, swales, outlets and other BMPs will be inspected every 14 calendar days and after all heavy rainfall of 0.25 inches or more. If defects or damage are noted in the measures, the defect or damage will be immediately reported and repaired. If the measures prove to be inadequate to control erosion, changes will be made to the design and additional measures will be added as necessary.

Accumulated sediment will be removed when it reaches 40% of the height of the silt fencing. Worn, torn or otherwise damaged silt fencing will be fixed or replaced.

The site will be cleaned on a daily basis of litter, debris and materials such as paper, wood, concrete, etc.

h) Stormwater Management

No proposed changes to stormwater flows, quantities or direction are proposed for this project.

Management of stormwater for the duration of the project will be limited to ensuring no discharge of contaminated stormwater from the site boundaries, and prevention of erosion of project areas through controlled release from site discharge points.

All stormwater control devices will be inspected every 14 calendar days and after all heavy rainfall of 0.25 inches or more. If defects or damage are noted in the measures, the defect or damage will be immediately reported and repaired. If the measures prove to be inadequate to control stormwater flow, changes will be made to the design and additional measures will be added as necessary.

i) Maintenance Schedule of Stormwater Facilities

Sediment control devices, including dikes swales, and outlets, will be inspected every 14 calendar days and after any heavy rainfall of 0.25 inches or more. If defects or damage are

noted in the measures, the defect or damage will be immediately reported and repaired. If the measures prove to be inadequate to control erosion, changes will be made to the design and additional measures will be added as necessary.

Accumulated sediment will be removed when it reaches 40% of the height of the silt fencing, and in accordance with the approved SWPPP requirements. Worn, torn or otherwise damaged silt fencing will be fixed or replaced. The site will be cleaned on a daily basis of litter, debris, and materials such as paper, wood, concrete, etc.

j) Sewage Disposal

Project sewage management will be limited to maintaining portable restrooms on site, and ensuring they are emptied by a qualified waste management company at an appropriate frequency to minimize spills or discharges from the site.

There are no existing sewer lines (either private or municipal) in the area. The proposition of the installation of sewage system, units or piping is outside of the scope of this project.

5.02 SITE PLANS (See Attached Drawings)

5.02.01 Lot Layout (See Attached Engineer/Surveyor drawings)

5.02.02 Road Layouts (See Attached Engineer/Surveyor drawings)

5.02.03 Position of Structures (See Attached Engineer/Surveyor drawings)

5.02.04 Septic System/wastewater Treatment (Not Applicable)

5.02.05 Stormwater Drainage (See Attached Engineer/Surveyor drawings)

5.02.06 Stormwater Facilities (See Attached Engineer/Surveyor drawings)

5.02.07 Erosion and Sediment Control Plan (See Attached Spec Sheets)

5.02.08 Landscaping Plan (Not Applicable)

5.02.09 Other Required Drawings (See Attached Engineer/Surveyor drawings)

5.02.10 Required Maps (See Attached: Official Zoning Map, Parcel Map, FIRM)

5.03 PROJECT WORKPLAN

The project is proposed to be performed as one single phase with some individual tasks overlapping in sequence. It will entail site preparation and mobilization, demolition and earth work, construction, and demobilization and cleanup. It is not anticipated that the project will take a significant amount of time to complete.

Site Preparation will consist of mobilization and initial survey and staking. After layout determination and establishment, Erosion & Sediment control will be set up, along with Traffic and Pedestrian Control Plan that will follow Maintenance of Traffic (MOT) requirements set forth by USDOT. Mobilization of machinery and equipment will follow proper site setup for safety and protection of workers and environment.

Approximate Timeline – 7 days

Demolition will begin with initial site clearing and basic grubbing to prepare for demolition. Vegetation will be removed and sent to the WMA Transfer station for green waste. Scraping of the deteriorated section of asphalt road will occur next, with C&D waste disposed of in the Anguilla Landfill via permitted dump trucks. After road surface removal and disposal of C&D waste, grading and excavation of soil will commence to prepare the earth for drainage ditches.

Approximate Timeline – 7 days

Earth and Culvert Construction will entail embankment shaping and setting, culvert installation and headwall casting. Class IV riprap over geotextile material will then be applied to the inlet and outlet of the headwall and culvert structures, to provide transition points and prevent erosion of the headwall surrounding area.

Approximate Timeline – 7 days

Roadway Construction will focus on roadway construction and profile. Final asphalt layers will be applied per road construction specifications, to provide correct profile for safe driving conditions and to allow for proper drainage and storm resistance. Finally, pavement markings will complete the construction work, and the site will be stabilized and closed through any necessary landscaping and site cleanup as required by environmental standards and regulation.

Approximate Timeline – 7 days

All work on this road project will follow Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, as well as local building, environmental and safety regulations.

Total time for construction completion is estimated at 28 days.

6.00 SETTING AND PROBABLE IMPACT ON THE NATURAL ENVIRONMENT

6.01 DRAINAGE, FLOODING AND EROSION CONTROL

a) Drainage Patterns

Runoff currently flows from the northeast side of the road to the southwest, from an existing man-made catchment pond, into a small pond with heavy surrounding vegetation. Due to the distance to the nearest waterbody (almost three-quarters of a mile through drainage route to the Caribbean Sea), the runoff would then infiltrate or evaporate prior to reaching any larger waterbody.

b) Proposed Alterations to Drainage Patterns

There are no proposed alterations to drainage patterns. The new triple culvert structure will allow better flow of stormwater during heavy rain events, but will not alter drainage pattern or direction.

c) Relationship of Project to Coastal Floodplain

Review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for U.S. Virgin Islands Index indicate that the project area, although not directly within the flood zone rated Zone AE, it is directly adjacent, less than 50 feet from the flood zone indicated by FEMA on the FIRM below. The project area is also less than 100 feet from a regulated floodway. See below in Figure 6.01.1, the FIRM Panel 0077G, depicting exact site location relative to flood zones. Possible flooding is anticipated for this section of roadway in its current use during major flood conditions. The new culvert structure with three 48" culverts will assist in mitigating the majority of flood conditions for this area.

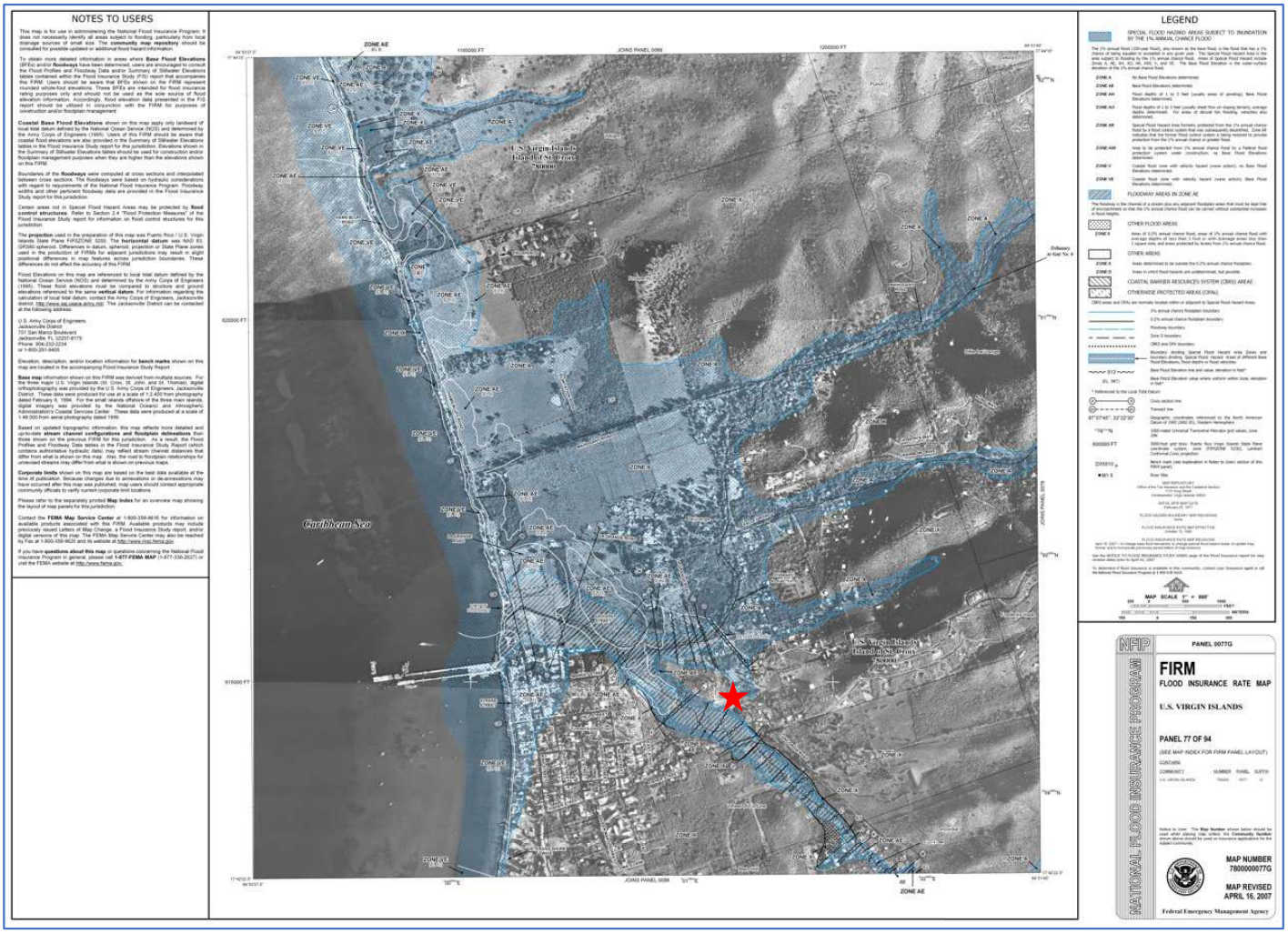

Figure 6.01.1 – Section of Flood Insurance Rate Map (FIRM) Panel 0070G, 77 of 94. April 16, 2007

d) Peak Stormwater Flow Calculations

Included with this Flood Hazard Permit Assessment Report is a TR-55 hydrology study along with culvert design calculations. The following table notes the Peak discharge rates for the 1-yr thru 100-yr 24-hour storm events.

PEAK DISCHARGE RATE TABLE							
Storm Frequency	1 YR	2 YR	5 YR	10 YR	25 YR	50 YR	100YR
Peak Discharge Rate (cfs)	57.63	75.14	93.68	106.63	134.32	160.68	180.90
Rainfall Intensity (in/hr)	2.25	2.94	3.66	4.17	4.77	5.24	5.66

Rational Method (LAT:17.712767, LON:-64.874395)

Figure 6.01.2 – Peak Discharge Rates for 1-yr thru 100-yr 24-hour storm events.

These calculations assume a Runoff Coefficient of 0.8, Time of Concentration of 23 minutes, and overall contributing watershed area of 31.97 acres.

e) *Existing Stormwater Disposal Structures*

There are no known existing stormwater disposal structures at the site except a 24-in CMP culvert beneath the roadway from the northeast to the southwest of the roadway. This existing pipe has a capacity of 18.65 CFS, meaning any flow greater than 18.65 CFS will overtop the road. This includes all storm frequencies evaluated as part of the TR-55 analysis.

f) *Proposed Stormwater Control Facilities*

No proposed changes to stormwater flows, quantities or direction are proposed for this project, with the exception of the above reinforcement and repair work. The existing CMP culvert however, will be replaced by a three 48-in HDPE pipe culvert structure with headwalls and riprap spillways. The proposed triple culvert structure will convey up to 179.46 CFS, which includes the 50-year 24-hour storm event.

Management of stormwater for the duration of the project will be limited to ensuring no discharge of contaminated stormwater from the site boundaries, and prevention of erosion of project areas through controlled release from site discharge points.

The project itself will allow for improved performance during flood conditions by replacing the damaged culvert and improving asphalt layers applied with a crown profile for improved drainage.

g) *Maintenance Schedule for Stormwater Facilities*

During construction, sediment control devices, including dikes swales, and outlets, will be inspected every 14 calendar days and after any heavy rainfall of 0.25 inches or more. If defects or damage are noted in the measures, the defect or damage will be immediately reported and repaired. The designs of any measures that prove to be inadequate to control erosion, will be changed and additional measures will be added as necessary.

Accumulated sediment will be removed when it reaches 40% of the height of the silt fencing, and in accordance with the approved SWPPP requirements. Worn, torn or otherwise damaged silt fencing will be fixed or replaced. The site will be cleaned on a daily basis of litter, debris and materials such as paper, wood, concrete, etc.

After construction is complete, a maintenance schedule will be prepared and submitted to the VI Department of Public Works for use in their routine O&M plan for stormwater infrastructure.

h) *Proposed Method of Land Clearing*

Any brush and debris requiring removal in order to access the existing road and related infrastructure, will be cut and transported off-site as green waste for disposal at the Waste

Management Authority Transfer Station. Earth work will be limited to scraping the road surface and excavating the culvert.

i) Provisions to Preserve Topsoil and Limit Site Disturbance

Topsoil and site disturbance will be minimized during the construction timeline. The project will focus within the existing footprint of the road along the 40-foot length as depicted in the site drawings.

The site will otherwise see no topsoil or site disturbance.

A Storm Water Pollution Prevention Plan (SWPPP) complying with the Department of Planning and Natural Resources' Construction General Permit requirements will be implemented during project activities.

j) Critical Areas and Possible Trouble Spots

The project area is in a fairly populated section of the West End in St. Croix. It is a small neighborhood with several single-family residential homes. There are two small ponds in the vicinity, one to the northeast, and the other to the southwest of the referenced section of road. Drainage ditches and the referenced existing culvert is what allows runoff to flow from one to the other during heavy rains. Most of the area adjacent to the project site is developed, however to the southwest of the project site is strictly undeveloped vegetation. As such, the clearing of debris and repair of the roadway must not cause any impact to the surrounding areas, water quality, existing habitats or wildlife.

Site slope is 0-2%. Elevation is approximately 16 feet above sea level.

A review of the U.S. Fish & Wildlife Information for Planning and Consultation (IPaC) indicate that there are no endangered species, migratory birds, or sensitive facilities directly in or around the project area.

Due to the nature of the project scope of road rehabilitation, there exists potential for sedimentation and erosion during project activities. The nearby ponds, while not home to endangered species, is still habitat for various birds, fish and other aquatic species. Strict control of site earthwork is required to prevent discharge of sediment into these adjacent waterbodies.

Accordingly, appropriate protective Best Management Practices (BMPs) will be employed through the entire project timeline in accordance with minimum requirements of the VI Environmental Protection Handbook (2002). Through careful work as well as the fact that the project footprint is essentially identical to the existing infrastructure and so exposed soils and earthwork will be kept to a bare minimum, there are no anticipated impacts to stormwater and water quality.

These BMPs chosen will meet the minimum standards of the VI Environmental Protection Handbook (2002).

k) Erosion and Sediment Control Devices to be Implemented

The following Best Management Practices (BMPs) will be implemented on the site to control runoff and protect natural resources:

Silt Fence – Due to working in a drainage route and close proximity to two water ponds, silt fencing shall be used to protect the downstream pond and vegetated areas and control runoff and sediment loss on both the east and west sides of the road. The proposed location for silt fencing placement is indicated in the attached Erosion Control Plan figure.

Containment Berms – A containment berm will be constructed, if needed, to support the silt fencing in containing stormwater and retaining sediment.

Design of these BMPs will follow the minimum standards of the VI Environmental Protection Handbook (2002).

l) Maintenance of Erosion and Sediment Control

Sediment control devices, such as dikes, swales, outlets and other BMPs will be inspected every 14 calendar days and after all heavy rainfall of 0.25 inches or more. If defects or damage are noted in the measures, the defect or damage will be immediately reported and repaired. If the measures prove to be inadequate to control erosion, changes will be made to the design and additional measures will be added as necessary.

Accumulated sediment will be removed when it reaches 40% of the height of the silt fencing. Worn, torn or otherwise damaged silt fencing will be fixed or replaced.

The site will be cleaned on a daily basis of litter, debris and materials such as paper, wood, concrete, etc. The site will be cleaned on a daily basis of litter, debris and materials such as paper, wood, concrete, etc.

m) Impacts to Terrestrial and Shoreline Erosion

The project area is in a fairly developed section in the West End of St. Croix, in Estate La Grange. There is minimal sloping (0-2%) with heavy vegetation to the southwest of the project area. The project site boundary itself, which is essentially the road section, is fully developed consisting of 95% of either impervious asphalt or flat packed earth surface.

The proposed development will not alter the existing drainage patterns of the site.

Silt Fencing will be set up with reinforcing berms as needed to ensure catchment of direct runoff from the project area, thereby minimizing potential impact to receiving waters.

All standard sediment and erosion control devices and BMPs will be implemented when performing any site work and will be maintained throughout the life of the facility. Permanent BMPs shall be maintained by DPW according to standard practices on a regular schedule and after storm events.

As the site is a significant distance to the shoreline, there will be no impact to that area.

6.02 MARINE RESOURCES AND HABITAT ASSESSMENT

The project area is partially developed and located directly east of the town of Frederiksted. This is a single-family residential area with few anthropogenic sources of pollution.

However, NOAA and DPNR have established Frederiksted as an Area of Particular Concern (APC). Figure 6.02.1 below depicts APCs of St. Croix, including the Frederiksted area (#1). However, the project site is outside of the referenced APC boundaries and it not anticipated to have any impact on these areas.

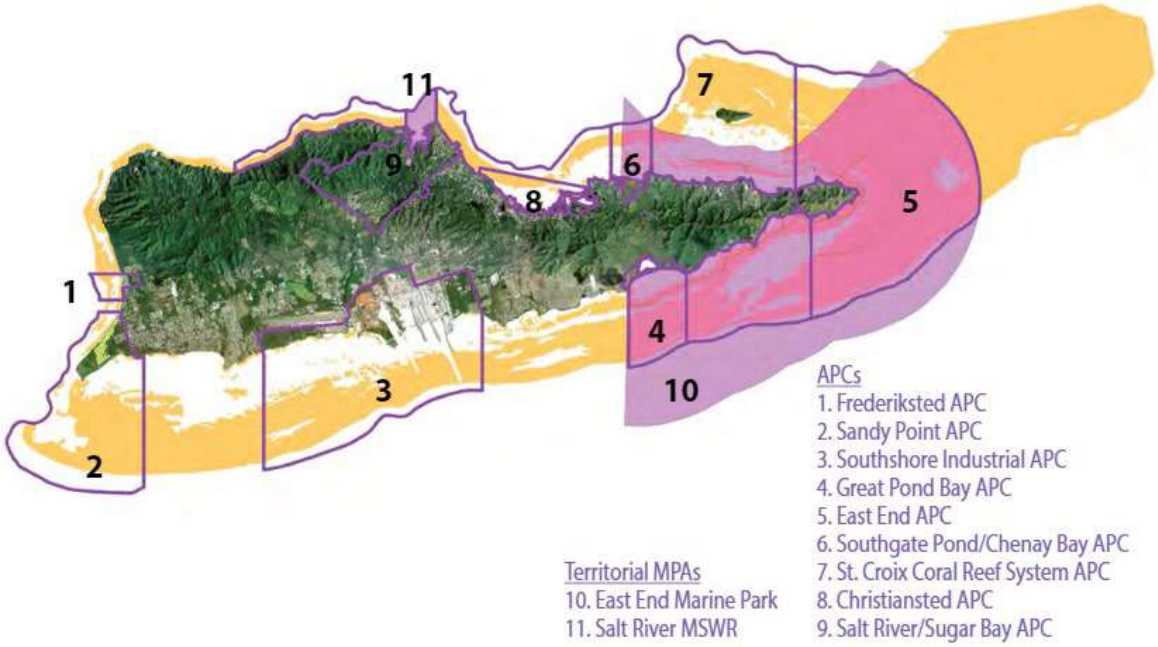

Figure 6.02.1 –NOAA, NOAA Technical Memorandum NOS NCCOS 187, October 2014

A review of the 2002 NOAA Benthic Habitat Maps shows the portion of shoreline closest to the project site is comprised of reef/colonized bedrock closest to shore and reef/colonized pavement further out, all within the bank/shelf zone.

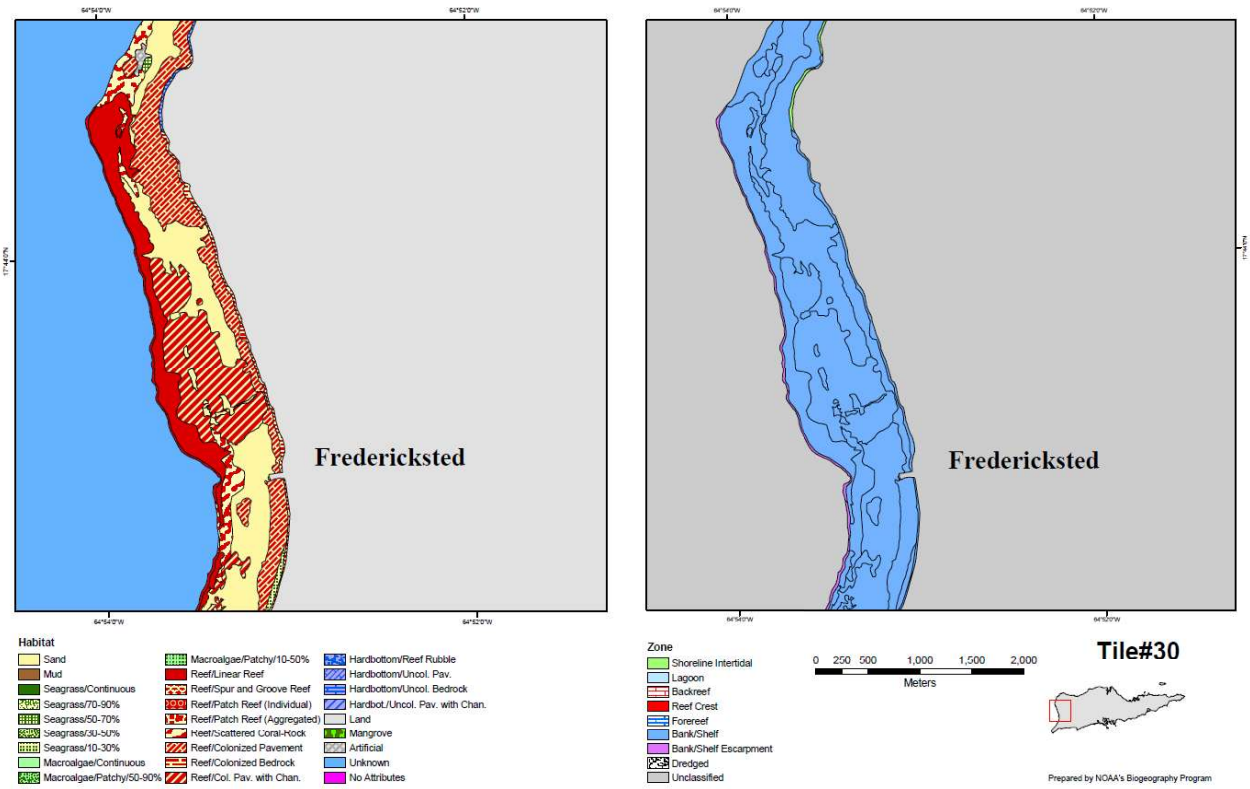

Figure 6.02.2 – 2002 NOAA Benthic Habitat Maps, Salt River Bay, St. Croix, USVI.

A review of the U.S. Fish & Wildlife Information for Planning and Consultation (IPaC) indicate that there are no endangered species, migratory birds, or sensitive facilities directly in or around the project area.

6.03 TERRESTRIAL RESOURCES

The Environmental Sensitivity Index (ESI) Map for the island of St. Croix notes no specific habitat of particular sensitivity in the area, as show in Figure 6.03.1 below.

Should any native, endangered or threatened plant or animal species be encountered, staff at VI DPNR – DFW will be contacted immediately at (340) 773-1082.

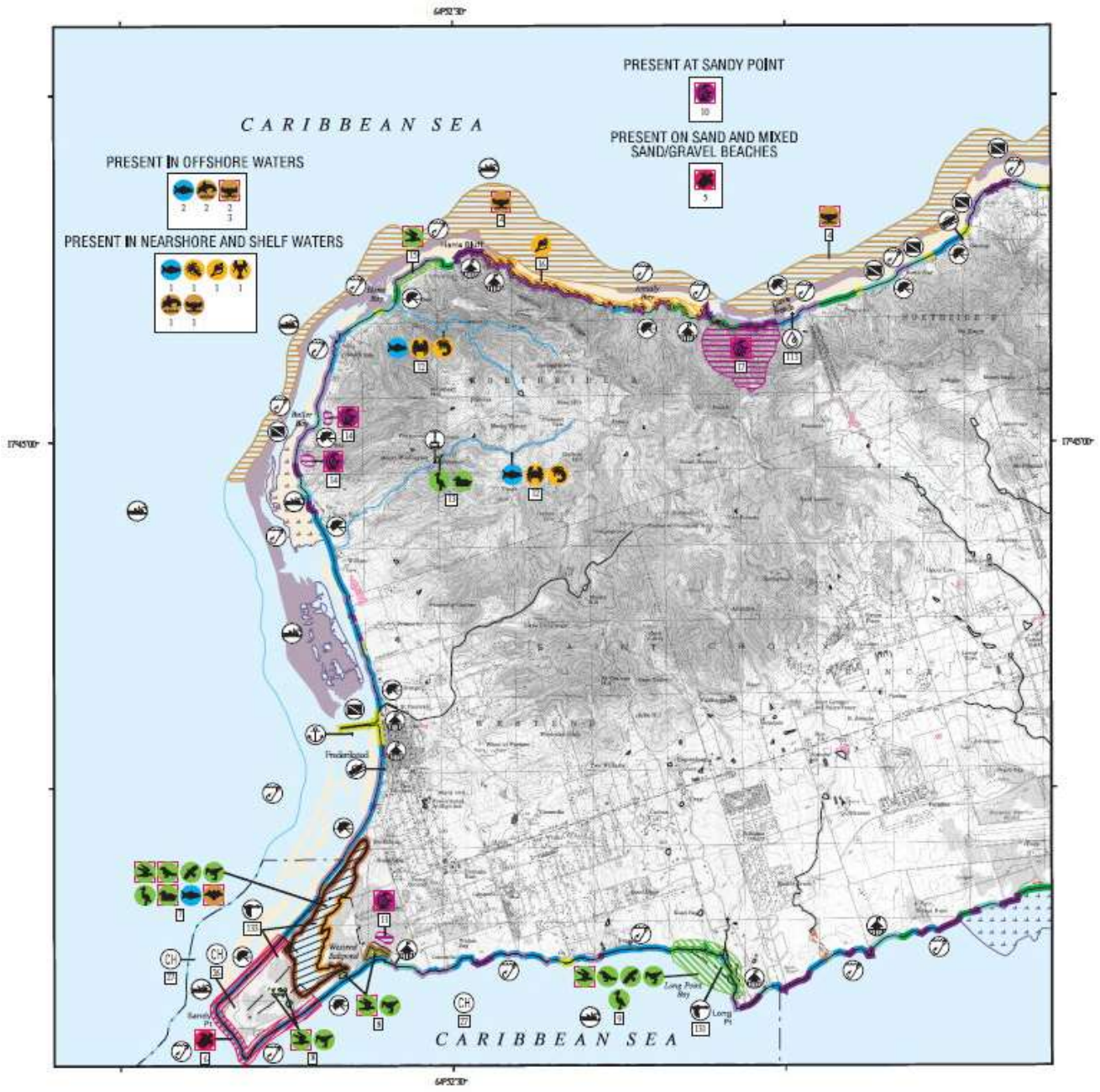

Figure 6.03.1 – Environmental Sensitivity Index Map, VI-1, St. Croix, USVI.

Impact of the Proposed Project

As part of recommendations set by the Section 7 CWA Endangered Species Act consultation with USFWS, VIP will minimize the footprint of work to the greatest extent possible and is not expected to extend farther than necessary beyond the road shoulder to complete repairs.

As the site will not see expansion beyond the existing footprint and compliance with both stormwater and air pollution permits will be ensured through the life of the facility, there are no anticipated negative impacts to these species or their habitat, neither in the nearshore waters nor on land.

6.04 WETLANDS

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, marshes and similar areas." (U.S. Army Corps of Engineers, 1986).

While there are two ponds within 100 feet of the project boundary, there are no terrestrial wetlands within the project area, nor is it anticipated there will be any negative impact to these ponds.

6.05 RARE AND ENDANGERED SPECIES

A review of the U.S. Fish & Wildlife Information for Planning and Consultation (IPaC) indicate that there are no endangered species, migratory birds, or sensitive facilities directly in or around the project area.

6.06 AIR QUALITY

No air quality issues are anticipated for this project. A minimum of soil exposure and earth movement will occur at the site. Stockpiling will be protected and kept to a minimum. If work is done during particularly dry and/or windy conditions, a water truck can be used to wet down the area to prevent fugitive dust from leaving the site. These water trucks will bring water from the VIP asphalt plant location, or from a commercial water provider. Dust control measures to ensure no air quality issues arise are outlined in the Storm Water Pollution Plan for this project.

7.00 REFERENCES

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